

ASYNCHRONOUS DATA BUFFER AND A METHOD OF USE THEREOF

ABSTRACT

5 An improved asynchronous data buffer is disclosed. The data buffer comprises an entry
section and a signaling circuit coupled to the entry section, the signaling circuit for signaling the
data buffer to transfer a portion of a data cell from the entry section prior to the data cell being
completely received by the entry section. Through the use of the data buffer in accordance with
the present invention, data transfer systems are improved in two ways. First, by enabling data to
10 be transferred before it is completely stored into the buffer, the latency that is typically required
for data cell transfer is reduced. Second, the buffer storage space that is typically required to
store a complete data cell is also reduced. This two-fold improvement produces increased data
transfer rates while decreasing the amount of required buffer storage space.